



**Features:**

- n Isolated mounting base 3000V~
- n Solder joint technology with increased power cycling capability
- n Space and weight saving

**Typical Applications**

- n Various rectifiers
- n DC supply for PWM inverter

V <sub>RRM</sub>	Type & Outline
<b>800V</b>	MDC110-08-224H3
<b>1000V</b>	MDC110-10-224H3
<b>1200V</b>	MDC110-12-224H3
<b>1400V</b>	MDC110-14-224H3
<b>1600V</b>	MDC110-16-224H3
<b>1800V</b>	MDC110-18-224H3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T <sub>j</sub> (°C)	VALUE			UNIT
				Min	Type	Max	
I <sub>F(AV)</sub>	Mean forward current	180° half sine wave 50Hz Single side cooled, T <sub>c</sub> =100°C	150			110	A
I <sub>F(RMS)</sub>	RMS forward current					173	A
I <sub>R(RM)</sub>	Repetitive peak current	at V <sub>RRM</sub>	150			8	mA
I <sub>FSM</sub>	Surge forward current	V <sub>R</sub> =60%V <sub>RRM</sub> , t=10ms half sine,	150			2.0	kA
I <sup>2</sup> t	I <sup>2</sup> t for fusing coordination					20.0	10 <sup>3</sup> A <sup>2</sup> s
V <sub>FO</sub>	Threshold voltage		150			0.80	V
r <sub>F</sub>	Forward slope resistance					1.74	mΩ
V <sub>FM</sub>	Peak forward voltage	I <sub>FM</sub> =330A	25			1.55	V
R <sub>th(j-c)</sub>	Thermal resistance Junction to case	At 180° sine. Single side cooled				0.35	°C/W
R <sub>th(c-h)</sub>	Thermal resistance case to heatsink	At 180° sine. Single side cooled				0.20	°C/W
V <sub>iso</sub>	Isolation voltage	50Hz, R.M.S, t=1min, I <sub>iso</sub> :1mA(MAX)		3000			V
F <sub>m</sub>	Terminal connection torque(M5)			2.5		4	N·m
	Mounting torque(M6)			4.5		6	N·m
T <sub>vj</sub>	Junction temperature			-40		150	°C
T <sub>stg</sub>	Stored temperature			-40		125	°C
W <sub>t</sub>	Weight				100		g
Outline	224H3						

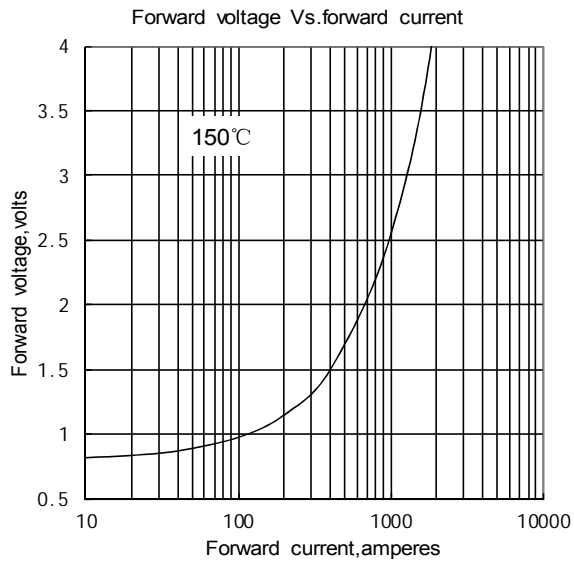


Fig1

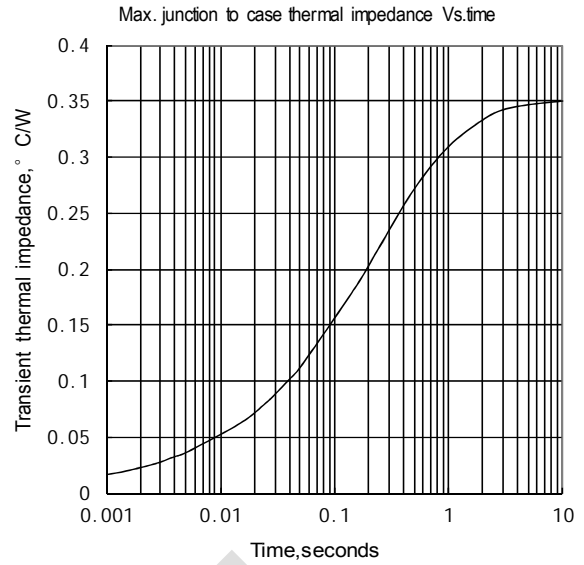


Fig2

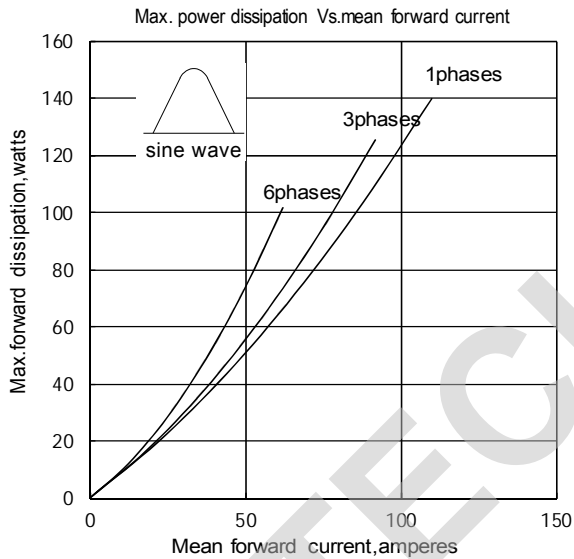


Fig3

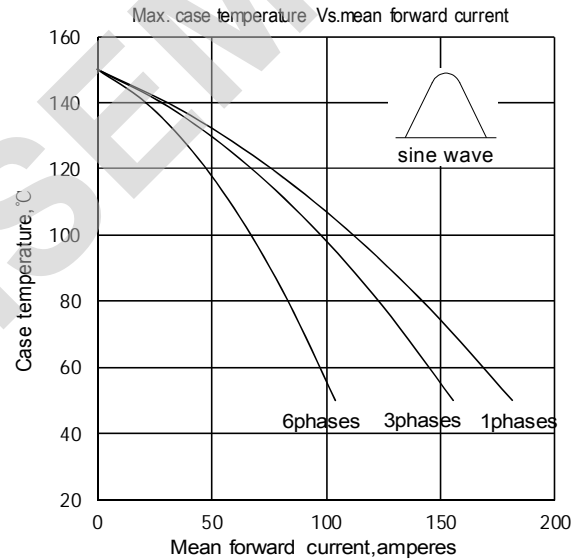


Fig4

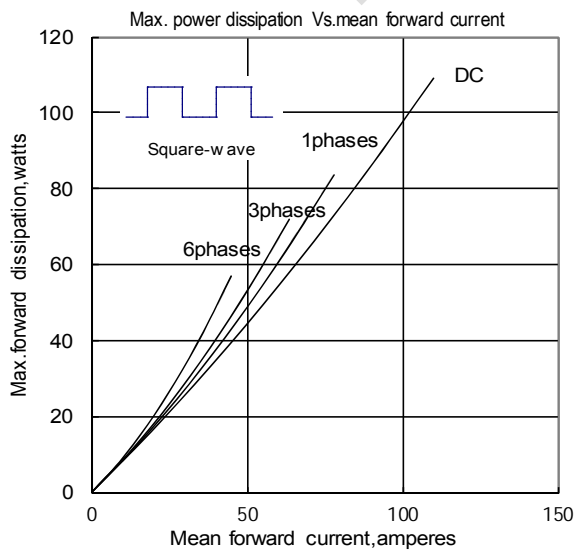


Fig5

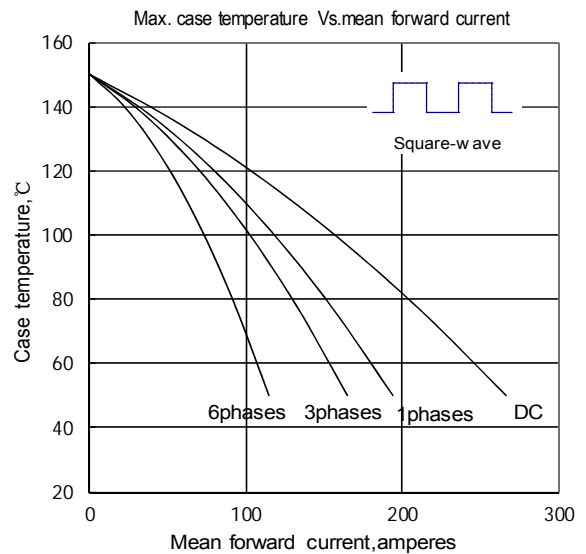


Fig6

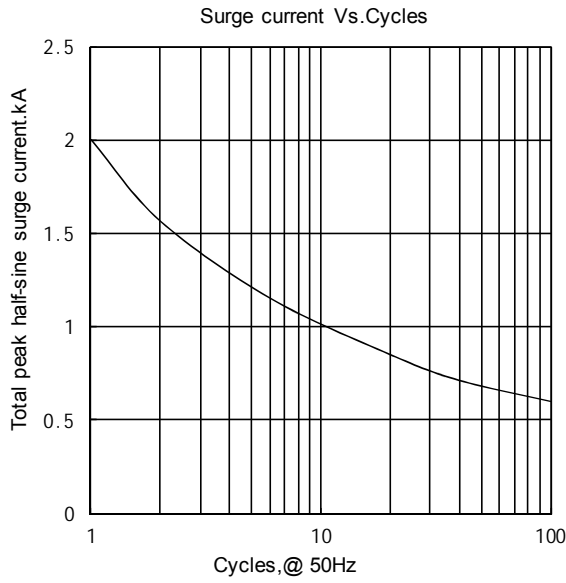


Fig.7

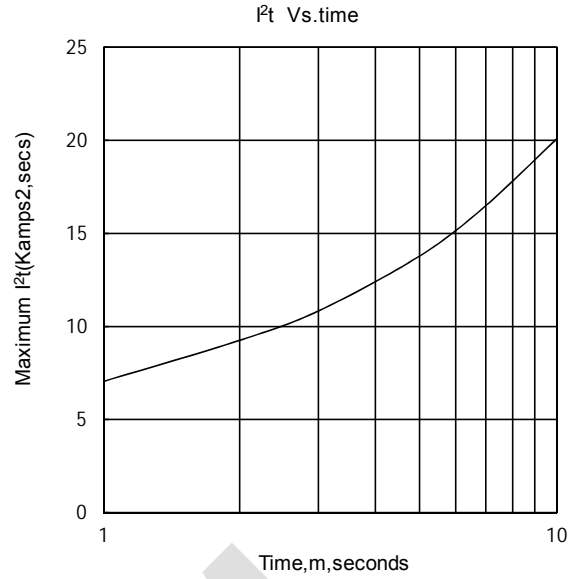
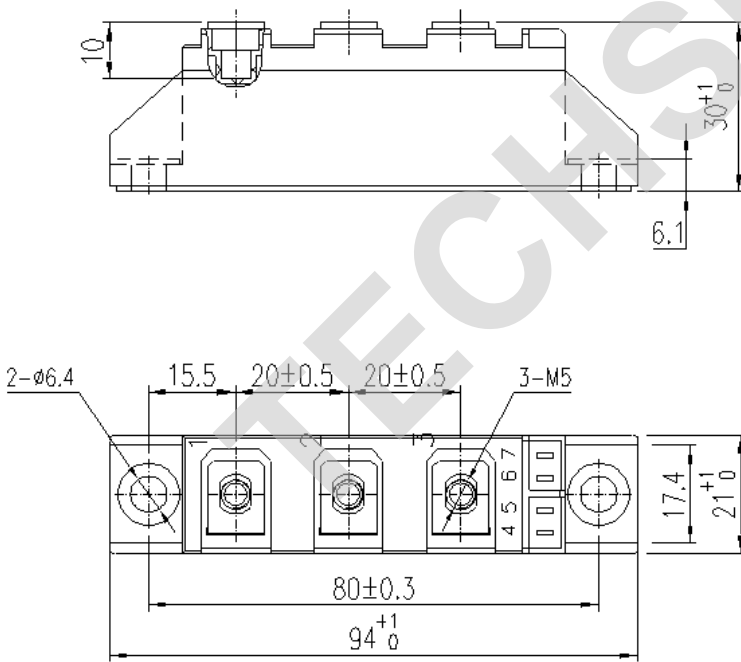


Fig.8

Outline:



Unmarked dimensional tolerance:  $\pm 0.5\text{mm}$

TECHSEM reserves the right to change specifications without notice.